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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,910	12/09/2003	Fabio Broussard	245663US0CONT	3292
22850	7590	06/02/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			CHOI, LING SIU	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 06/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/729,910	BROUSSARD ET AL.	
	Examiner	Art Unit	
	Ling-Siu Choi	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34-38 is/are allowed.
- 6) ☒ Claim(s) 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/09/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Application is a Continuation of US Application No. 08/447,807, filed May 23, 1995, now abandoned, which is a Division of US Application No. 08/272,826, filed July 11, 1994, now US Patent No. 5,486,613.
2. This Office action is in response to the Preliminary Amendment. Claims 1-20 were canceled and claims 21-38 have been added, wherein claims **21** is drawn to a method to accelerate the vulcanization of rubber; claims **22-33** are drawn to a method to accelerate the vulcanization of rubber; claims **34-38** are also drawn to a method to accelerate the vulcanization of rubber.

Specification

3. The disclosure is objected to because of the following informalities: a subtitle of **Brief Description of the Drawing(s)** is missing. See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

Appropriate correction is required.

Claim Objections

4. Claim 21 is objected to because of the following informalities: claim 21, line 4,

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“said enamine, than” is suggested to be changed to -- said enamine than--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22, line 15, the recitation “when R₁ represents a hydrogen atom” causes indefiniteness because R₁ is not defined to be hydrogen. See lines 5-9 of the same claim.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application

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for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 21-33 are rejected under 35 U.S.C. 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Danielson (US 4,082,706).

A method to accelerate the vulcanize rubber, comprising
adding to a rubber an enamine derived from a secondary amine as a vulcanization accelerator, wherein the rubber vulcanizes more quickly with the enamine than without the enamine

(summary of claim 21)

Danielson discloses a method to enhance the ozone resistance by adding an enamine depicted as Formula (I) to a natural rubber, styrene-butadiene rubber, ethylene-propylene-no-conjugated diene terpolymer rubber, wherein a sulfonamide is used as a vulcanization accelerator (col. 3, lines 29-37; Table A; claims 1-7). It is noted that Danielson is silent on the use of such enamine in accelerating the vulcanization of rubber. Judging from the statements that "the ozone resistance of white-wall tire stock can be greatly improved by incorporating therein an enamine" (col. 2, lines 3-7) and

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"[t]hese vulcanized products often develop cracks while being exposed to ozone, and when also subjected to mechanical strain" (col. 1, lines 11-16), the function of the enamine would be to enhance the vulcanization of the rubber to avoid the development of crack. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. **In re Best**, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); **In re Fitzgerald**, 205 USPQ 594 (CCPA 1980).

Allowable Subject Matter

10. This application contains allowable subject matter (claims 34-38) because the prior art of record (US 4,082,706 to Danielson), either alone or in combination, fails to teach or suggest a method to use the claimed enamine as a vulcanization accelerator.


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

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LING-SUI CHOI
PRIMARY EXAMINER

March 25, 2005